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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,947	12/26/2001	Hsuan-Yin Lan-Hargest	12938-003002	8464
27890	7590	05/24/2007		
STEPTOE & JOHNSON LLP 1330 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036			EXAMINER ZUCKER, PAUL A	
			ART UNIT 1621	PAPER NUMBER
			MAIL DATE 05/24/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/025,947	Applicant(s) LAN-HARGEST ET AL.	
	Examiner Paul A. Zucker	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,8,12,13,16,17,22,25,26,80-94,96,97 and 99-103 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,12,13,16,17,22,25,26,80-94,96,97 and 99-103 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Current Status

1. This action is responsive to Applicants' amendment of 3 May 2007.
2. Receipt and entry of Applicants' amendment is acknowledged.
3. Claims 1-5, 7, 8, 12, 13, 16, 17, 22, 25, 26, 80-94, 96, 97 and 99-103 are pending.
4. The objection to the specification set forth in paragraph 1 of the previous Office Action in Paper No 8 is withdrawn in response to Applicant's amendment.
5. The rejections under 35 USC § 112, second paragraph, set forth in paragraphs 9-12 of the previous Office Action mailed 5 December 2006 are withdrawn in response to Applicant's amendment.
6. Claims 1-5, 12, 13, 22 and 102 are finally rejected under 35 U.S.C. 102(b) as being anticipated by Fleming et al (Chemical Communications, Decarboxylative Elimination of Enol Triflates as a General Synthesis of Acetylenes, 1999, pages 1113-1114). Fleming discloses (Page 11113, column 2, top) compound **2b**, 5-phenyl-pent-2-ynoic acid which corresponds to an instantly claimed compound. Fleming therefore anticipates claims 1-5, 12, 13, 22 and 102.

Examiner's Response to Applicant's Response to This Rejection

7. The Examiner thanks Applicants for their correction of the typographic error in the rejection of record. This error is corrected above. Applicant, however, has presented an amendment which does not overcome the rejection of record since the compound of Fleming does not contain "one triple bond and one double bond". The added

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proviso therefore does not apply to the compound of Fleming and the rejection is therefore MAINTAINED.

8. Claims 1-5, 7, 8, 22, 25, 26, 91-94, 96, 97, and 102 are finally rejected under 35 U.S.C. 102(b) as being anticipated by Herold et al (US 5,010,189 04-1991). Herold discloses (Column 30, lines 2-7) the compound 6-cyclohexyl-2-phenyl-4-hexenoic acid which is an instantly claimed compound wherein L is substituted with monocyclic aryl. Since no specific double bond geometry is disclosed the Examiner assumes that both isomers are present. Fleming further discloses (Column 29, lines 9-14) an aqueous solution of the compound corresponding to a pharmaceutical composition. Herold therefore anticipates claims 1-5, 7, 8, 22, 25, 26, 91-94, 96, 97, and 102.

Examiner's Response to Applicant's Response to This Rejection

9. Applicants argue that Herold does not disclose the acid but rather the ester. The Examiner disagrees since Applicants disclose the ester's hydrolysis, after isolation, to the corresponding acid with 6N NaOH. Further, Applicant has presented an amendment which does not overcome the rejection of record since the compound of Fleming does not contain "one triple bond and one double bond". The added proviso therefore does not apply to the compound of Herold, Y¹ may be CH₂, and the rejection, as modified according to Applicants' amendment, is therefore MAINTAINED.

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10. The rejections under 35 USC § 102 set forth in paragraph 15 of the previous Office Action mailed 5 December 2006 is withdrawn in response to Applicant's amendment.

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New Objections and Rejections

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-5, 7-8, 12-13, 16-17, 22, 25, 26, and 80-102 are finally rejected under 35 U.S.C. 102(b) as being anticipated by Jaeger et al (European Journal of Medicinal Chemistry, Structure-activity Relationship Studies of Retinoid Cancer Inhibition, 1993, 28, pages 275-290). Jaeger discloses (Page 278, Table I, bottom, entries 92 and 93) the compounds **92** and **93** which correspond to compounds of instant formula (1) wherein A = substituted and unsubstituted phenyl; Y¹, Y² = a bond; L is a straight chain C₈ hydrocarbon with 4 double bonds in *trans* configuration substituted with methyl groups and X¹, X² = O. Jaeger further discloses (Page 279, Table I, center, entry 120) the compound **120** which corresponds to a compound of instant

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formula (1) wherein A = C₆ cycloalkenyl; Y¹, Y² = a bond with double bonds adjacent; L is a straight chain C₆ hydrocarbon with 2 double bonds in *trans* configuration substituted with a methyl group and X¹, X² = O. Jaeger further discloses (Page 280, Table I, bottom) the use 10⁻⁸ molar solutions (pharmaceutical compositions) for treating keratinized cell cultures. Jaeger therefore anticipates claims 1-5, 7-8, 12-13, 16-17, 22, 25, 26, and 80-102.

12. Claims 1-5, 12-13, 102 and 103 are finally rejected under 35 U.S.C. 102(b) as being anticipated by Taketani et al (US 5,196,147 03-1993). Taketani discloses (Column 5, line 27-column 6, line 61) an exceptionally large number of 5-phenyl-2-cyano-2,4-pentadienoic and 7-phenyl-2-cyano-2,4,6-heptatrienoic acid derivatives which anticipate the instantly claimed compounds. Specific examples are 2-cyano-5-phenyl-2,4-pentadienoic acid (Column 5, line 29), 2-cyano-7-phenyl-2,4,6-heptatrienoic acid (Column 6, line 13) and 2-cyano-7-(p-methoxyphenyl)-2,4,6-heptatrienoic acid (Column 6, line 22). Y¹ and Y² are a bond attached to double bonds.

Conclusion

13. Claims 1-5, 7, 8, 12, 13, 16, 17, 22, 25, 26, 80-94, 96, 97 and 99-103 are pending. Claims 1-5, 7, 8, 12, 13, 16, 17, 22, 25, 26, 80-94, 96, 97 and 99-103 are finally rejected.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Zucker whose telephone number is 571-272-0650. The examiner can normally be reached on Monday-Friday 5:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richter R. Johann can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



PAULA A. ZUCKER, PH.D.
PRIMARY EXAMINER
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